

Appl. No. 09/912,695
Amdt. dated October 2, 2003
Amendment under 37 CFR 1.116 Expedited Procedure
Examining Group

PATENT

Amendments to the Specification:

In the Substitute Specification, please replace paragraph [0030] with the following amended paragraph:

[0001] Fig. 16 is a cross-section through the container in accordance with Fig. 15, along the intersection line A16-A16;

Please replace paragraph [0032] with the following amended paragraph:

[0002] Fig. 18 is a cross-section through the agitating device shown in Fig. 17, along the intersection line D18-D18;

Please replace paragraph [0034] with the following amended paragraph:

[0003] Fig. 20 is a cross-section through the agitating device shown in Fig. 19, along the intersection line E20-E20; and

Please replace paragraph [0036] with the following amended paragraph:

[0004] Fig. 1 shows, in a longitudinal section, a magnetic stirring apparatus 1 comprising an agitator 1a, a bar 1b and a float body 1f, which are connected to one another. Two permanent magnets 1d, 1e are arranged symmetrically with respect to the bar 1b inside the agitator 1a, as shown in Fig. 1a in the section F-F, 1a-1a of Fig. 1. The bar 1b opens downwardly into a tip 1c, which forms a toe bearing together with the bottom of the container 3. The agitator 1a is arranged slightly spaced from the tip 1c in the first end section 1o of the bar 1b so that the agitator does not touch the bottom of the container 3. The float body 1f is arranged in the second end section 1p. The float body 1f is displaceable in the direction of extension of the bar 1b and can be fixedly connected to the bar 1b by a fastening means (not shown) such as a screw. The magnetic stirring apparatus 1 is held in a substantially vertical position by the liquid 4 located inside the container 3 and the buoyancy force FAZ thus effected on the float body 1f. The float body 1f thus stabilizes the magnetic stirring apparatus 1 hydrostatically against tilting so that the position of the magnetic stirring apparatus is thereby hydrostatically stabilized with respect to two degrees of freedom.

Please replace paragraph [0050] with the following amended paragraph:

[0005] In distinction to the agitating device 6 shown in Fig. 2, in the embodiment shown in Fig. 11, the drive device 2 is formed as a plurality of core bodies 2f which, as can be seen from the section along the line D-D12-12 of Fig. 11 shown in Fig. 12, are arranged at regular spacings in

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the peripheral direction in order to generate an electromagnetic rotating field by a corresponding selection. These coils have several advantages. Unlike permanent magnets, whose force of attraction becomes greater, the nearer the agitator is, a constant magnetic field can be generated with the coils so that the force of attraction does not increase as the distance to the agitator decreases. Moreover, the magnetic field strength can be regulated via the current of the coils. This exerts a stabilizing influence on the position of the magnetic stirring apparatus.

Please replace paragraph [0051] with the following amended paragraph:

[0006] In distinction to the agitating device 6 shown in Fig. 2, the magnetic stirring apparatus 1 in the embodiment shown in Fig. 13 has three vanes or blades 1h, 1i, 1k arranged spaced in a vertical direction. This allows the rotational forces of the magnetic stirring apparatus 1 to be transmitted in an even better way to the liquid 4. The section along the line G-G14-14 of Fig. 13 shown in Fig. 14 shows the vane 1h with a cruciform design in section. Moreover, the cruciform vane arranged beneath it and the agitator arranged at the very bottom are shown.

Please replace paragraph [0052] with the following amended paragraph:

[0007] In distinction to the agitating device 6 shown in Fig. 2, the magnetic stirring apparatus 1 shown in Fig. 15 has an additional vane 1h which is fixedly connected to the bar 1b. This vane 1h serves the better transmission of the rotational forces acting on the magnetic stirring apparatus to the liquid 4. The stirring of the liquid 4 effects an increase of the liquid level 4a at the rim of the container 3, whereas the liquid level 4a falls at the center, which has the consequence that the magnetic stirring apparatus 1 sinks. The change in the liquid level 4a or the rotation speed of the liquid can be reduced in the container 3 by a plurality of radially inwardly projecting rotation brakes 3a being arranged at the inside wall of the container 3, as shown in Fig. 16 along the section A-A-16-16 of Fig. 15.

Please replace paragraph [0055] with the following amended paragraph:

[0008] The section along the line D-D18-18 of Fig. 17 shown in Fig. 18 shows the container wall 3 and the adjustment device 5 arranged outside the container 3 having supports 5e on which the permanent magnets 5a, 5b, 5c, 5d are arranged adjustably in the direction of displacement 5f. A

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plurality of permanent magnets 1m is arranged inside the hollow space of the float body 1f and extend in the peripheral direction.

Please replace paragraph [0057] with the following amended paragraph:

[0009] Fig. 20 shows the flow body 1f in cross-section along the sectional line E-E, 20-20 of Fig. 19, with four permanent magnets 1m spread in the peripheral direction being arranged inside said flow body 1f. The cylinder-shaped part 2g of the drive device 2 is arranged outside the container 3, with four permanent magnets 2d also being arranged spread in the peripheral direction at part 2g such that a magnetic coupling is formed between the permanent magnets 1m of the float body 1f and the permanent magnet 2d of the drive device 2.